



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,014	01/11/2002	Kuei-Hung Lee	67,200-620	7480

7590 01/06/2004

TUNG & ASSOCIATES
Suite 120
838 W. Long Lake Road
Bloomfield Hills, MI 48302

EXAMINER

BRAHAN, THOMAS J

ART UNIT	PAPER NUMBER
----------	--------------

3652

DATE MAILED: 01/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

BEST AVAILABLE COPY

Office Action Summary

Application No.

10/044,014

Applicant(s)

LEE, KUEI-HUNG

Examiner

Thomas J. Brahan

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

1. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

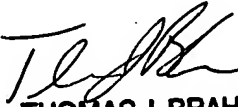
2. Claims 1 and 4-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shamlou et al. Shamlou et al shows the basic claimed end effector with a tapered end (114). The dimensions of the blade and the cassette arrangement appear to approximate those claimed (an angle range including 10 degrees), as to have the slight differences considered as design expedients which would have been within the level of routine skill in the art at the time the invention was made. The large central portion (101) can be considered as a single finger, as recited in claim 4. The two small portions adjacent tips (114) can be considered as two fingers, as recited in claims 5 and 17.

3. Claims 1 and 4-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shamlou et al in view of Chen et al. Shamlou et al shows the basic claimed end effector with a tapered end (114). The dimensions of the blade and the cassette arrangement appear to approximate those claimed (an angle range including 10 degrees). Chen et al shows another wafer handling blade arrangement and teaches that as the dimensions of the wafer are increased or decreased, the dimensions of the wafer support blade and its tapered portion can be varied, see column 3, lines 11-14. It would have been obvious to one of ordinary skill in the art to modify the dimensions and the angle of the taper of the wafer handling blade of Shamlou et al as the dimensions of the intended wafer change, as taught by Chen et al. The large central portion (101) can be considered as a single finger, as recited in claim 4. The two small portions adjacent tips (114) can be considered as two fingers, as recited in claims 5 and 17.

4. Applicant argues in the amendment filed October 7, 2003, that the Shamlou et al reference has a leading edge (122) that is tapered. However the leading edge (114) is used in the rejection. This edge has an angle range beginning at 10 degrees as to be only 2 degrees off from the applicant's claimed range. It does not mention a thickness for the tapered portion, but it does state that its length is 2.5 mm. As its thickness is shown less than its length, the thickness would also be approximate to the 1.8-1.95 mm recited in the claims. The dimensions of the tapered portions of Shamlou et al approximate those recited in the claims as to have the small differences be considered as obvious design expedients. As applicant argues that the references themselves do not mention that the determining of the essential dimensions of the wafer blade was a design consideration or expedient, a rejection which includes the Chen et al reference, with such a teaching, has been included above. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. An inquiry concerning this action should be directed to Examiner Thomas J. Brahan at telephone number (703) 308-2568 on Mondays through Fridays from 9:30-7:00 EST. The examiner's supervisor, Ms. Eileen Lillis, can be reached at (703) 308-3248. The new fax number for all patent applications is (703) 872-9306.

 12/21/03
THOMAS J. BRAHAN
PRIMARY EXAMINER

BEST AVAILABLE COPY